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IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TENNESSEE  
WESTERN DIVISION

FILED BY

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AUG 18 2005

AFTER HOURS DEPOSITORY  
Thomas M. Gould, Clerk  
U. S. District Court  
W. D. OF TN, Memphis

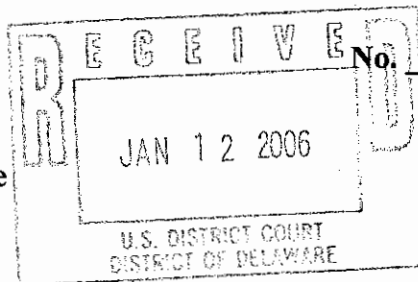
CORY WILES, individually and on behalf  
of himself and all persons similarly situated,

Plaintiff,

v.

INTEL CORPORATION, a Delaware  
Corporation,

Defendant.



No. 05-2605

B An

05 - 914

DEFENDANT INTEL CORPORATION'S NOTICE OF REMOVAL  
PURSUANT TO 28 U.S.C. §§ 1332(d) AND 1453 (Class Action Fairness Act of 2005)

TO THE HONORABLE JUDGES OF THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TENNESSEE, WESTERN DIVISION:

Pursuant to 28 U.S.C. §§ 1332(d) and 1453(b), Defendant Intel Corporation ("Intel") hereby removes to this Court the state court action described below, on the basis of the Class Action Fairness Act of 2005 ("CAFA"). In support of this notice, Defendant states:

1. On July 15, 2005, Plaintiff commenced an action in the Thirtieth Judicial District Court of the State of Tennessee in and for Shelby County, entitled *Cory Wiles, individually and on behalf of himself and all persons similarly situated, Plaintiff, vs. Intel Corporation, a Delaware Corporation, Defendant*, as Civil Case No. CT 3801-05 ("Complaint"). The plaintiff, Cory Wiles, a Tennessee resident, seeks damages against Intel for himself and a purported class of similarly situated Tennessee residents for violations of Tenn. Code Ann. § 47-25-101 (anticompetitive arrangements or combinations) and Tenn. Code Ann. § 47-18-101 *et seq.* (Consumer Protection Act).

2. A First Amended Complaint ("FAC") was filed on the same date as this notice,

(1)

August 18, 2005. Defendant has not been served with the FAC.<sup>1</sup> The only change seems to be one additional statement: "As of the date of filing of this First Amended Class Action Complaint, the amount in controversy in this action does not exceed \$5,000,000, exclusive of interests and costs." FAC ¶12.

3. Both at the time of the commencement of this action in state court and as of the date of this removal, Intel was a Delaware corporation with its principal place of business in Santa Clara, California.

4. This Court has original jurisdiction under 28 U.S.C. § 1332(d)(2). It is a class action in which the class population exceeds 100 members,<sup>2</sup> diversity exists between at least one plaintiff (Mr. Wiles, a Tennessee resident) and Intel, and the Complaint alleges claims that facially involve an aggregate amount in controversy, including the requested statutory attorney's fees, in excess of the sum or value of \$5,000,000, exclusive of interest and costs. 28 U.S.C. §§ 1332(d)(2), 1332(5)(b). The Plaintiff's FAC does not alter that fact. Removal is proper "even when the [c]omplaint requests damages less than the jurisdictional amount... if it is 'more likely than not' the jurisdictional amount has been met." *Lewis v. Exxon Mobile Corp.*, 348 F. Supp. 2d 932, 934 (W.D. Tenn. 2004) (denying remand).<sup>3</sup>

<sup>1</sup> Defendant is only required to attach filings in the state with which it has been served (28 U.S.C. §1446(a)) but provides this information to assist the court.

<sup>2</sup> Plaintiff estimates that members of the alleged class number in the thousands. (Compl. ¶ 13).

<sup>3</sup> Elsewhere in both the Complaint and FAC there are allegations that contradict that assertion. The Plaintiff purports to represent "all persons and entities within the state of Tennessee who from June 29, 2001, through the present, indirectly purchased a microprocessor from the Defendant." (Compl. ¶12; FAC ¶13). Plaintiffs estimate their class members number in the thousands. (Compl. ¶13; FAC ¶14). Aggregation of these claims is proper under CAFA. 28 U.S.C. § 1332(d)(6). Thus, the Plaintiff claims damages from anticompetitive pricing for every Intel processor indirectly purchased by a Tennessee citizen over the past four years. The Complaint makes that clear that these transactions were numerous. While it does not specify Tennessee market share, it alleges that Intel holds 90% of the worldwide market in microprocessor revenues. (Compl. ¶1; FAC ¶1). The Complaint describes alleged anticompetitive behavior with many major computer manufacturers including IBM, Gateway, Dell, Sony, and Toshiba. (Compl. ¶¶40-60; FAC ¶¶41-61). Further, the Complaint request statutory attorneys' fees, which may be included in the amount in controversy for jurisdictional purposes. *Clark v. National Travelers Life Ins. Co.*, 518 F.2d 1167, 1168 (6th Cir. 1975). It is "facially apparent" and "more likely than not" by these allegations that amount in controversy exceeds \$5,000,000, the minimum amount required by 28 U.S.C. § 1332(d).

5. The Western Division of the Western District of United States District Court for the District of Tennessee is the proper venue because it is the district and division embracing the place where the state court action is pending.

6. Intel's removal is timely. Intel received a copy of the summons and the Complaint by certified mail on July 19, 2005.<sup>4</sup>

7. Intel will promptly notify the Plaintiff and the Thirteenth Judicial District Court of the State of Tennessee in and for Shelby County of this removal.

8. Intel attaches hereto, as Exhibit A, a copy of the notice to the Plaintiff and the state court, as Exhibits B and C respectively, true and correct copies of the Complaint and the summons and as Exhibit D, the FAC filed this morning.

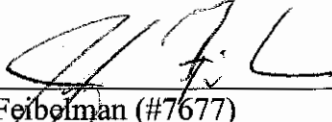
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<sup>4</sup> Defendant does not admit or deny this was proper service. However, this date is the earliest possible date of service. Proof of service has not been filed with the court to date.

Respectfully submitted,

BURCH, PORTER & JOHNSON, PLLC

DATED: August 18<sup>th</sup>, 2005

  
\_\_\_\_\_  
Jef Feibelman (#7677)  
130 North Court Avenue  
Memphis, TN 38103  
Telephone: 901.524.5000  
Facsimile: 901.524.5024  
jfeibelman@bpjlaw.com

and

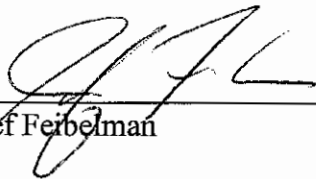
David M. Balabanian (CA# 37638)  
Christopher B. Hockett (CA# 121539)  
Joy K. Fuyuno (CA # 123890)  
BINGHAM McCUTCHEN LLP  
Three Embarcadero Center  
San Francisco, CA 94111-4067  
Telephone: 415.393.2000  
Facsimile: 415.393.2286

Richard A. Ripley (DC# 412959)  
BINGHAM McCUTCHEN LLP  
1120 20th Street, NW, Suite 800  
Washington, DC 20036  
Telephone: 202.778.6150  
Facsimile: 202.778.6155

Attorneys for Defendant  
INTEL CORPORATION

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing has been served via U.S. Mail, postage prepaid, B.J. Wade, Esq., Glassman, Edwards, Wade & Wyatt, P.C., 26 North Second Street, Memphis, Tennessee, 38103, on this 18<sup>th</sup> day of August 2005.

  
\_\_\_\_\_  
Jef Feibelman

**IN THE CIRCUIT COURT OF SHELBY COUNTY, TENNESSEE  
FOR THE THIRTIETH JUDICIAL DISTRICT AT MEMPHIS**

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**CORY WILES, individually and on behalf  
of himself and all persons similarly situated,**

**Plaintiff,**

**v.**

**No. CT 3801-05  
Division IV**

**INTEL CORPORATION, a Delaware  
Corporation,**

**Defendant.**

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**NOTICE OF FILING OF NOTICE OF REMOVAL**

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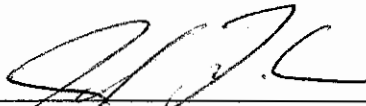
A Notice of Removal of this action was filed in the United States District Court for the Western District of Tennessee on August 18, 2005, by Defendant Intel Corporation pursuant to 28 U.S.C. §§ 1332(d) and 1453(b). The Court is respectfully requested to proceed no further in this action, unless and until the action is remanded by the United States District Court.

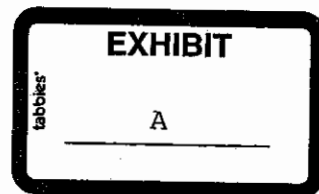
A copy of the Notice of Removal is attached to this Notice as Exhibit 1.

Dated: August \_\_\_\_, 2005

Respectfully submitted,

BURCH, PORTER & JOHNSON, PLLC

  
\_\_\_\_\_  
Jeff Feibelman (#7677)  
130 North Court  
Memphis, Tennessee 38103  
Telephone: 901.524.5000  
Facsimile: 901.524.5024



OF COUNSEL:

David M. Balabanian (CA# 37638)  
Christopher B. Hockett (CA# 121539)  
Joy K. Fuyuno (CA # 123890)  
BINGHAM McCUTCHEN LLP  
Three Embarcadero Center  
San Francisco, CA 94111-4067  
Telephone: 415.393.2000  
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\_\_\_\_\_  
Jef Feibelman

FILED

JUL 15 2005

IN THE CIRCUIT COURT OF SHELBY COUNTY, TENNESSEE  
FOR THE THIRTIETH JUDICIAL DISTRICT AT MEMPHIS

CIRCUIT COURT CLERK  
BY Bea D.C.

117342  
CORY WILES, individually and on behalf  
of himself and all persons similarly situated,

Plaintiff,

vs.

117343  
INTEL CORPORATION, a Delaware  
Corporation,

Docket No.: CT-cv-3801-05  
Div IV

Defendant.

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**CLASS ACTION COMPLAINT**

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**COMES NOW** Plaintiff Cory Wiles, by and through his undersigned attorneys, and brings this civil action for damages on behalf of himself and all persons similarly situated in the State of Tennessee who purchased a microprocessor indirectly from the Defendant, as defined in paragraph III(12) below. For his Class Action Complaint Plaintiff alleges, upon personal knowledge as to himself and his own acts and, as to all other matters, upon information and belief, the investigation made by and through his attorneys as follows. Additional information in support of the claims herein is within the exclusive possession, knowledge and control of Defendant.

**I. NATURE OF THE ACTION**

1. Intel holds a monopoly in a market critical to our economy: microprocessors that run the Microsoft Windows and Linux families of operating systems (hereinafter the "x86 Microprocessor Market"). Intel possesses unmistakable and undeniable market power, its

microprocessor revenues accounting for approximately ninety percent (90%) of the worldwide total (and eighty percent (80%) of the units).

2. For over a decade Intel has unlawfully maintained its monopoly by engaging in a relentless, worldwide campaign to coerce customers to refrain from dealing with Advanced Micro Devices, Inc. ("AMD"). Among other things:

- Intel has forced major customers into exclusive or near-exclusive deals;
- it has conditioned rebates, allowances and market development funding on customers' agreement to severely limit or forego entirely purchases from its major competitor AMD.
- it has established a system of discriminatory, retroactive, first-dollar rebates triggered by purchases at such high levels as to have the practical and intended effect of denying customers the freedom to purchase any significant volume of processors from AMD;
- it has threatened retaliation against customers introducing AMD computer platforms, particularly in strategic market segments;
- it has established and enforced quotas among key retailers effectively requiring them to stock overwhelmingly, if not exclusively, Intel-powered computers, thereby artificially limiting consumer choice;
- it has forced PC makers and technology partners to boycott AMD product launches and promotions;
- and it has abused its market power by forcing on the industry technical standards and products which have as their central purpose the handicapping of AMD in the marketplace.



3. Intel's economic coercion of customers extends to all levels – from large computer makers like Hewlett-Packard and IBM to small system-builders to wholesale distributors to retailers such as Circuit City. All face the same choice: accept conditions that exclude AMD or suffer discriminatory pricing and competitively crippling treatment. In this way, Intel has avoided competition on the merits and deprives AMD of the opportunity to stake its prices and quality against Intel's for every potential microprocessor sale.

4. Intel's conduct has become increasingly egregious over the past several years as AMD has achieved technological leadership in critical aspects of microprocessor architecture. In April 2003, AMD introduced its Opteron microprocessor, the first microprocessor to take x86 computing from 32 bits to 64 bits – an advance that allows computer applications to address exponentially more memory, thereby increasing performance and enabling features not possible with just 32 bits. Unlike Intel's 64-bit architecture of the time (Itanium), the AMD Opteron – as well as its subsequently-introduced desktop cousin, the AMD Athlon64 – offers backward compatibility, allowing PC users to continue using 32-bit software as, over time, they upgrade their hardware. Bested in a technology duel over which it long claimed leadership, Intel increased exploitation of its market power to pressure customers to refrain from migrating to AMD's superior, lower-cost microprocessors.

5. Intel's conduct has unfairly and artificially capped AMD's market share, and constrained it from expanding to reach the minimum efficient levels of scale necessary to compete with Intel as a predominant supplier to major customers. As a result, computer manufacturers continue to buy most of their requirements from Intel, continue to pay monopoly prices, continue to be exposed to Intel's economic coercion, and continue to submit to artificial

limits Intel places on their purchases from AMD. With AMD's opportunity to compete thus constrained, the cycle continues, and Intel's monopoly profits continue to flow.

6. Consumers ultimately foot this bill, in the form of inflated PC prices and the loss of freedom to purchase computer products that best fit their needs. Society is worse off for lack of innovation that only a true competitive market can drive. The Japanese Government recognized these competitive harms when on March 8, 2005, its Fair Trade Commission (the "JFTC") recommended that Intel be sanctioned for its exclusionary misconduct directed at AMD. Intel chose not to contest the charges.

7. In this proposed class action Plaintiff, on behalf of the class of indirect purchasers of Intel microprocessors seeks compensatory damages and treble damages arising from Intel's restraint of trade and unfair business practice.

## **II. PARTIES, JURISDICTION AND VENUE**

8. Plaintiff, Cory Wiles is an individual residing in Shelby County, Tennessee. Plaintiff purchased a computer with an Intel microprocessor in August 2002 from Dell. This purchase occurred in Shelby County, Tennessee.

9. All of the members of the proposed class are citizens of the State of Tennessee. Class Plaintiffs seek significant relief from Defendant Intel Corporation and do not seek any other relief at this time from any other Defendant. Defendant Intel Corporation's conduct forms a significant, if not the sole basis for the claims by class Plaintiffs herein, and to the best of Plaintiff's knowledge, no other action has been filed on behalf of a Tennessee class of indirect purchasers.

10. Defendant Intel Corporation is a Delaware corporation with its principal executive offices at Santa Clara, California, and it conducts business both directly and through wholly-owned and dominated subsidiaries worldwide. Intel and its subsidiaries design, produce, and sell a wide variety of microprocessors, flash memory devices, and silicon-based products for use in the computer and communications industries worldwide.

11. The Defendant has transacted business in the State of Tennessee and this county.

### **III. CLASS ACTION ALLEGATIONS**

12. Plaintiff brings this suit as a class action pursuant to Rule 23 of the Tennessee Rules of Civil Procedure, on behalf of himself and a Plaintiff Class ("the Class") composed of and defined as follows:

All persons and entities within the State of Tennessee who from June 29, 2001 through the present, indirectly purchased a microprocessor from the Defendant. Specifically excluded from this Class are the Defendant; the officers, directors or employees of the Defendant; any entity in which any has a controlling interest; and any affiliate, legal representative, heir or assign of the Defendant. Also excluded are any federal, state or local governmental entities, any judicial officer presiding over this action, and the members of his/her immediate family and judicial staff, and any juror assigned to this action.

13. This action has been brought and may be properly maintained as a class action pursuant to Rule 23 of the Tennessee Rules of Civil Procedure for the following reasons:

- a. The Class is ascertainable and there is a well-defined community of interest among the members of the Class;
- b. Based upon the nature of the trade and commerce involved and the number of indirect purchasers of Intel-powered computers, Plaintiff believes that the members of the class number in the thousands, and therefore is sufficiently numerous that joinder of all Class members is not practicable;

- c. Plaintiff's claims are typical of the claims of the members of the Class because Plaintiff indirectly purchased an Intel microprocessor from the Defendant or its co-conspirators, and therefore Plaintiff's claims arise from the same common course of conduct giving rise to the claims of the members of the class and the relief sought is common to the Class;
- d. The following common questions of law or fact, among others, exists as to the members of the Class:
  - i. whether Defendant formed and operated a combination or conspiracy to fix, raise, maintain or stabilize the prices of, or allocate the market for microprocessors;
  - ii. whether the combination or conspiracy caused microprocessors prices to be higher than they would have been in the absence of Defendant's conduct;
  - iii. the operative time period of Defendant's combination or conspiracy;
  - iv. whether Defendant's conduct caused injury to the business or property of Plaintiff and the members of the Class;
  - v. the appropriate measure of the amount of damages suffered by the Class;
  - vi. whether Defendant's conduct violates TCA § 47-25-101, *et seq.*;
- e. These and other questions of law or fact which are common to the members of the Class predominate over any questions affecting only individual members of the Class;
- f. After determination of the predominate common issues identified above, if necessary of appropriate, the Class can be divided into logical and manageable subclasses;
- g. Plaintiff will fairly and adequately protect the interests of the Class in that Plaintiff has no interests that are antagonistic to other members of the Class and has retained counsel competent and experienced in the prosecution of class actions and antitrust litigation to represent themselves and the Class;
- h. A class action is superior to other available methods for the fair and efficient adjudication of this litigation since individual joinder of all damaged Class members is impractical. The damages suffered by individual Class members are relatively small, given the expense and

burden of individual prosecution of the claims ascertained in this litigation. Thus, absent the available of class action procedures, it would not be feasible for Class members to redress the wrongs done to them. Even if the Class members could afford individual litigation, the court system could not. Further, individual litigation presents the potential for inconsistent or contradictory judgments and would greatly magnify the delay and expense to all parties and to the court system. Therefore, the class action device presents far fewer case management difficulties and will provide the benefits of unitary adjudication, economy of scale and comprehensive supervision by a single court;

- i. In the absence of class action, Defendant would be unjustly enriched because it would be able to retain the benefits and fruits of their wrongful conduct.

#### **IV. BACKGROUND**

##### **A. Early History**

14. The brain of every computer is a general-purpose microprocessor, an integrated circuit capable of executing a menu of instructions and performing requested mathematical computations at very high speed. Microprocessors are defined by their instruction set – the repertoire of machine language instructions that a computer can follow. So, too, are computer operating systems – software programs that perform the instructions in the set allowing the computer to perform meaningful tasks. The first generation of microprocessors, which were capable of handling 4 and then later 8 bits of data simultaneously, evolved to provide 16-bit capability (the original DOS processors), then sometime later a 32-bit capability (allowing the use of advanced graphical interfaces such as later versions of Windows), and now 64-bit capability.

15. When IBM defined the original PC standards in the early 1980s, it had available to it a variety of microprocessors, each with its own instruction set – among these were microprocessors developed by Motorola, Zilog, National Semiconductor, Fairchild, Intel and

AMD. IBM opted for the Intel architecture, which utilized what became known as the x86 instruction set (after Intel's naming convention for its processors, *i.e.*, 8086, 80186, 80286, 80386), and a compatible operating system offered by Microsoft, known as DOS. Unwilling to be consigned to a single source of supply, however, IBM demanded that Intel contract with another integrated circuit company and license it to manufacture x86 chips as a second source. AMD, which had worked with Intel before in supplying microprocessors, agreed to abandon its own, competing architecture, and it undertook x86 chips as a second source of supply. Assured it would not be dependent upon a monopoly supplier of x86 chips, IBM introduced the PC in August 1981 – and its sales exploded.

16. Although an arbitrator later found that “AMD’s sponsorship helped propel Intel from the chorus line of semiconductor companies into instant stardom,” Intel soon set out to torpedo the 1982 AMD-Intel Technology Exchange Agreement (the “Agreement”) by which each would serve as a second source for products developed by the other. For example, Intel was required by the Agreement to send AMD timely updates of its second generation 80282 chip. Instead, in a “deliberate” effort “to shackle AMD progress,” Intel sent AMD information “deliberately incomplete, deliberately indecipherable and deliberately unusable by AMD engineers.” The conduct was, in the arbitrator’s words, “inexcusable and unworthy.” And it was not isolated. Intel elsewhere tried to “sabotage” AMD products, engaged in “corporate extortion” and demonstrated a near-malevolent determination “to use all of its economic force and power on a smaller competitor to have its way.”

17. In another underhanded effort to stifle AMD’s business, Intel decided in 1984 that, the agreement between the parties notwithstanding, Intel would become the sole-source for the promising 80386 chip. To fully realize its objective, Intel engaged in an elaborate and

insidious scheme to mislead AMD (and the public) into erroneously believing that AMD would be a second source, thereby keeping AMD in the Intel "competitive camp" for years. This duplicitous strategy served a broader purpose than simply preventing AMD from competing with Intel. Customers' perception that AMD would continue to serve as Intel's authorized second source was essential to Intel's aim of entrenching the x86 family of microprocessors as the industry standard (as it had been essential to IBM's original introduction of the PC). Intel was well aware that if computer manufacturers knew Intel intended to sole source its 32-bit product, they would be motivated to select alternative products produced by companies offering second sources. Intel could not preserve the appearances that AMD would second source the 386 if it terminated the contract otherwise disclosed its actual intent. Thus, Intel stalled negotiations over product exchanges, while at the same time allowing AMD to believe that it could ultimately obtain the 386. This injured competition by deterring and impeding serious competitive challenges to Intel and directly injured AMD by depriving it of the revenues and profits it would have earned from such a challenge.

18. Intel implemented this secret plan for the purpose of acquiring and maintaining an illegal monopoly in the x86 line of microprocessors, which it did by at least 1987. As was its plan, Intel's conduct drained AMD's resources, delayed AMD's ability to reverse-engineer or otherwise develop and manufacture competitive products, and deterred AMD from pursuing relationships with other firms. In so doing, Intel wrongfully secured the benefit of AMD's marketing skills and talent in support of the x86 line of microprocessors and related peripherals and secured the benefit of substantial competitively sensitive AMD information regarding its product development plans. When AMD petitioned to compel arbitration in 1987 for Intel's breach and bad faith, the arbitrator took notice of Intel's anticompetitive design: "In fact, it is

not fantasy that Intel wanted to blunt AMD's effectiveness in the microprocessor marketplace, to effectively remove AMD as a competitor."

19. In 1992, after five years of litigation, the arbitrator awarded AMD more than \$10 million plus prejudgment interest and permanent, nonexclusive and royalty-free license to any Intel intellectual property embodied in AMD's own 386 microprocessor, including the x86 instruction set. Confirmation of the award was upheld by the California Supreme Court two years later. In bringing the litigation to a close, the arbitrator hope that by his decision, "the competition sure to follow will be beneficial to the parties through an expanded market with appropriate profit margins and to the consumer worldwide through lower prices." Not for the first time, and certainly not for the last, Intel's anticompetitive zeal was woefully underestimated.

**B. AMD Moves from Second Source to Innovator**

20. Shortly after confirmation of the award, AMD settled its outstanding disputed with Intel in a 1995 agreement which gave AMD a shared interest in the x86 instruction set but required it to develop its own architecture to implement those instructions. The settlement had the unintended benefit of forcing AMD to reinvent itself. Beginning in the late 1990s, AMD committed its resources to innovating not just to be different, but to deliver solutions of greatest benefit to its customers. Going its own way proved beneficial: AMD's first x86 chip without Intel pin-compatibility, the Athlon microprocessor delivered in 1999, marked the first but not last) time AMD was to leapfrog Intel technologically and beat it to market with a new generation Windows microprocessor (and break the 1GHz speed barrier to boot).

21. But AMD's biggest breakthrough came four years later when it introduced an extension of x86 architecture that took Windows processors into the realm of 64-bit computing. Unlike Intel, which invested billions in its Itanium microprocessor and a new, uniquely 64-bit



proprietary instruction set (which, because it was proprietary, would have been a game-ending development for AMD had it become the industry standard), AMD undertook to supplement the x86 instructions to accommodate 64-bit processing while allowing 32-bit software to be run as well. AMD's efforts culminated when, in April 2003, it brought to market its Opteron microprocessor for servers (the workhorse computers used by businesses to run corporate networks, e-commerce websites and other high-end, computationally-intense applications). Opteron was the industry's first x86 backward compatible 64-bit chip. Six months later, AMD launched the Athlon64, a backward compatible 64-bit microprocessor for desktops and mobile computers.

22. The computing industry hailed AMD's introduction of 64-bit computing as an engineering triumph. Said *Infoworld* in its August 27, 2004 issue:

You just gotta love a Cinderella story. . . .AMD's rapid rise from startup to \$5 billion semiconductor powerhouse is, as Humphrey Bogart's English teacher once said, the stuff of which dreams are made. . . . In the process, AMD has become known as the company that kept Intel honest, the Linux of the semiconductor world. . . . After decades of aping Intel architectures, the AMD64 architecture, rooted in Opteron and Athlon 64 processors, has actually been imitated by Intel in the form of Nocona, Intel's 64-bit version of Xeon. In a stunning reversal of fortune, Intel was forced to build that chip because Opteron was invading a server market that the Intel Itanium was supposed to dominate.

In what represented a paradigm shift in the microprocessor world, Microsoft endorsed AMD's 64-bit instruction set and announced that Windows would support it. As noted by *Infoworld*, Intel then copied AMD's technology for its own 64-bit offerings – an event that poignantly marked AMD's technological emergence. Intel still has yet to catch up.

23. AMD has since extended its AMD64 technology to the balance of AMD's microprocessor line-up (which now includes AMD Athlon 64, AMD Athlon 64 FX, Mobile

AMD Athlon 64, AMD Sempron, and AMD Turion64 products). Owing also to AMD's pioneering developments in dual-core processors and its introduction of an improved architecture that speeds up microprocessor communications with memory and input/output devices, AMD has seized technology leadership in the microprocessor industry. Its innovation has won for it over 70 technology leadership and industry awards and, in April 2005, the achievement of being named "Processor Company of 2005" at, to Intel's embarrassment, an Intel-sponsored industry awards show.

24. Tellingly, AMD's market share has not kept pace with its technical leadership. Intel's misconduct is the reason. Intel has unlawfully maintained the monopoly IBM bestowed on it and systematically excluded AMD from any meaningful opportunity to compete for market share by preventing the companies that buy ships and build computers from freely deploying AMD processors; by relegating AMD to the low-end of the market; by preventing AMD from achieving the minimum scale necessary to become a full-fledged, competitive alternative to Intel; and by erecting impediments to AMD's ability to increase its productive capacity for the next generation of AMD's state of the art microprocessors. Intel's exclusionary acts are the subject of the balance of this Complaint.

## **V. THE X86 PROCESSOR INDUSTRY**

### **A. Competitive Landscape**

25. The x86 versions of Windows and Linux, the two operating systems that dominate the business and consumer computer worlds, have spawned a huge installed base of Windows- and Linux-compatible application programs that can only run the x86 instruction set. This has given Intel effective ownership of personal computing. Although other microprocessors

are offered for sale, the non-x86 microprocessors are not reasonably interchangeable with x86 microprocessors because none can run the x86 Windows or Linux operating systems or the application software written for them.

26. The relevant product market is x86 microprocessors because a putative monopolist in this market would be able to raise the prices of x86 microprocessors above a competitive level without losing so many customers to other microprocessors as to make this increase unprofitable. While existing end-users can theoretically shift to other operating system platforms, high switching costs associated with replacing existing hardware and software make this impractical. Further, the number of new, first-time users who could choose a different operating-system platform is too small to prevent an x86 microprocessor monopolist from imposing a meaningful price increase for a non-transitory period of time. Computer manufacturers would also encounter high switching costs in moving from x86 processors to other architectures, and no major computer maker has ever done it. In short, demand is not cross-elastic between x86 microprocessors and other microprocessors at a competitive level.

27. The relevant geographic market for x86 microprocessors is worldwide. Intel and AMD compete globally; PC platform architecture is the same from country to country; microprocessors can be easily and inexpensively shipped around the world, and frequently are; and the potential for arbitrage prevents chipmakers from pricing processors differently in one country than another.

28. Intel dominates the worldwide x86 Microprocessor Market. According to published reports, over the past several years it has consistently achieved more than a ninety percent (90%) market share as measured by revenue, while AMD's revenue share has remained at approximately nine percent (9%), with all other microprocessor manufacturers relegated to

less than one percent (1%). Intel has captured at least eighty percent (80%) of the x86 microprocessor unit sales in seven of the last eight years. Since 1999, AMD's worldwide volume share has hovered at fifteen percent (15%), only once penetrating barely the twenty percent (20%) level. The following chart is illustrative:

**X86 Worldwide CPU Unit Market Share**

	1997	1998	1999	2000	2001	2002	2003	2004
Intel	85.0%	80.3%	82.2%	82.12%	78.7%	83.6%	82.8%	82.5%
AMD	7.3%	11.9%	13.6%	16.7%	20.2%	14.9%	15.5%	15.8%
Others	7.5%	7.9%	4.2%	1.1%	1.1%	1.4%	1.7%	1.7%

29. Intel's x86 family of microprocessors no longer faces any meaningful competition other than from AMD. National Semiconductor acquired Cyrix in 1997 but shuttered it less than two years later. At the beginning of this year only two other x86 chip makers remained, Via Technologies, Inc. and Transmeta Corporation – which together account for less than two percent (2%) of the market. Transmeta has since announced its intention to cease selling x86 microprocessors, and Via faces dim prospects of growing its market to a sustaining level.

30. Intel is shielded from new competition by huge barriers to entry. A chip fabrication plan ("fab") capable of efficiently mass-producing x86 microprocessors carries a price tag of at least \$2.5 to 3.0 billion. In addition, any new entrant would need the financial wherewithal to underwrite the billions more in research and development costs to design a competing x86 microprocessor and to overcome almost insurmountable IP and knowledge barriers.

#### **B. Customers for x86 Microprocessors**

31. Annual worldwide consumption of x86 microprocessors currently stands at just over 200 million units per year and is expected to grow by fifty percent (50%) over the remainder of the decade. Relatively few microprocessors are sold for server and workstation

applications (8.75 million in 2004), but these command the highest prices. Most x86 microprocessors are used in desktop PCs and mobile PCs, with desktops currently outnumbering mobile by a margin of three to one. Of the total worldwide production of computers powered by x86 microprocessors, thirty-two percent (32%) are sold to U.S. consumers; U.S. sales of AMD-powered computers account for twenty-nine percent (29%) of AMD's production.

32. The majority of x86 microprocessors are sold to a handful of large OEMs (original equipment manufacturers), highly visible companies recognized throughout the world as the leading computer makers. Regarded by the industry as "Tier One" OEMs over most product categories are: Hewlett-Packard ("HP"), which now also owns Compaq Computer; Dell, Inc.; IBM, which as of May 1, 2005, sold its PC (but not server) business to Lenovo; Gateway/eMachines; and Fujitsu/Fujitsu Siemens, the latter a Europe-based joint venture. Toshiba, Acer, NEC and Sony are also commonly viewed as Tier One OEMs in the notebook segment of the PC market. HP and Dell are the dominate players, collectively accounting for over thirty percent (30%) of the worldwide desktop and mobile sales, and almost sixty percent (60%) of the worldwide server sales. Both are U.S.-based companies, as are IBM and Gateway/eMachines; and all but Gateway have U.S. manufacturing operations (as does Sony, which operates a North American production facility in San Diego).

33. Worldwide, the Tier One OEMs collectively account for almost eighty percent (80%) of the servers and workstations (specialty high-powered desktops), more than forty percent (40%) of the worldwide desktop PCs, and over eighty percent (80%) of worldwide mobile PCs. Accordingly to industry publications, unit market share in 2004 among the Tier One OEMs were as follows:

**OEM Market Shares – 2004**

<b>Company</b>	<b>Server/WS</b>	<b>Desktop</b>	<b>Mobile</b>
Hewlett-Packard	29.86%	.69%	.23%
IBM/Lenovo	28.34%	16.18%	17.27%
Fujitsu/Siemens	3.70%	2.83%	6.88%
Acer	0.81%	1.85%	8.53%
Toshiba	0.31%	0.05%	12.73%
NEC	2.06%	2.02%	4.50%
Sony	-----	0.76%	4.23%
Gateway/eMachines	0.16%	2.48%	1.45%
<b>Total</b>	<b>79.70%</b>	<b>43.55%</b>	<b>81.02%</b>

34. The balance of x86 production is sold to smaller system builders and to independent distributors. The later, in turn, sell to smaller OEMs, regional computer assemblers, value-added resellers and other, smaller distributors. Currently, distributors account for over half of AMD's sales.

35. OEMs have adopted a variety of business models, including sales directly to customers through web-based e-commerce, sales through company-employed sales staffs (who target IT professionals and Fortune 1000 companies) and sales through a network of independent distributors (who focus on smaller business customers). With the exception of Dell, which markets to consumers only direct (mostly over the internet), most OEMs also sell through retail chains. Intel and AMD compete not only to have OEMs incorporate their microprocessors into their retain platforms but also to convince retailers to allocate shelf-space so that the platforms containing their respective microprocessors can be purchased in the retailers' stores.

36. Through its economic muscle and relentless marketing – principally its “*Intel Inside*” and “*Centrino*” programs which financially reward OEMs for branding their PCs as Intel machines – Intel has transformed the OEM world. While once innovative companies themselves, the OEMs have largely become undifferentiated distributors of the Intel platform,

offering “*Intel Inside*” and “*Centrino*” computers largely indistinguishable from those of their rivals.

## **VI. INTEL’S UNLAWFUL PRACTICES**

37. Intel has maintained its x86 microprocessor monopoly by deploying a host of financial and other exclusionary business strategies that in effect limit its customers’ ability and/or incentive to deal with AMD. Although differing from customer to customer and/or incentive to deal with AMD. Although differing from customer to customer and segment to segment, the Intel arsenal includes direct payments in return for exclusivity and near-exclusivity; discriminatory rebates, discounts and subsidies contained on customer “loyalty” that have the practical and intended effect of creating exclusive or near-exclusive dealing arrangements; threats of economic retaliation against those who give, or even contemplate giving, too much of their business to AMD, or who refuse to limit their AMD business to Intel-approved models, brands, lines and/or sectors, or who cooperate too closely with AMD’s promotion of its competitive processors; and misuse of industry standards-setting processes so as to disadvantage AMD products in the marketplace.

38. Intel’s misconduct is global. It has targeted both U.S. and offshore customers at all levels to prevent AMD from building market share anywhere, with the goal of keeping AMD small and keeping Intel’s customers dependent on Intel for very substantial amounts of product. In this way, OEMs remain vulnerable to continual threats of Intel retaliation, AMD remains capacity-constrained, the OEMs remain Intel-dependent, and Intel thereby perpetuates its economic hold over them, allowing it to continue to demand that customers curtail their dealings with AMD. And the cycle repeats itself: by unlawfully exploiting its existing market share, Intel

is impending competitive growth of AMD, thereby laying foundation for the next round of foreclosing actions with the effect that AMD's ability to benefit from its current technological advances is curtailed to harm of potential customers and consumers.

39. The following is not intended as an exhaustive catalog of Intel's misconduct, or a complete list of its unlawful acts, but only as examples of the types of improper exclusionary practices that Intel has employed.

**1. Practices Directed AT OEMs**

**a. Exclusive and Near-Exclusive Deals**

40. **Dell.** In its history, Dell has not purchased a single AMD x86 microprocessor despite acknowledging Intel shortcomings and customer clamor for AMD solutions, principally in the server sector. As Dell's President and CEO, Kevin Rollins, said publicly last February:

Whenever one of our partners slips on either the economics or technology, that causes us great concern. . . . For a while, Intel admittedly slipped technologically and AMD had made a step forward. We were seeing that in customer response and requests.

41. Nonetheless, Dell has been and remains Intel-exclusive. According to industry reports, Intel has bought Dell's exclusivity with outright payments and favorable discriminatory pricing and service. In discussions about buying from AMD, Dell executives have frankly conceded that they must financially account for Intel retribution in negotiating pricing from AMD.

42. **Sony.** With the introduction of its Athlon microprocessor in 1999, AMD began to make notable inroads into Intel's sales to major Japanese OEMs, which export PCs internationally including into the U.S. By the end of 2002, AMD had achieved an overall Japanese unit market share of approximately twenty-two percent (22%). To reverse the erosion of its business, in 2003 Intel paid Sony multimillion dollar sums, disguised as discounts and



promotional support, in exchange for absolute microprocessor exclusivity. Sony abruptly cancelled an AMD Mobile Athlon notebook model. Soon thereafter, it cancelled plans to release AMD Athlon desktop and notebook computers. As a result, AMD's share of Sony's business dropped from twenty-three percent (23%) in 2002 to eight percent (8%) in 2003, and then to zero percent (0%), where it remains today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Sony.

43. **Toshiba.** Like Sony, Toshiba was once a significant AMD customer, but also like Sony, Toshiba received a very substantial payment from Intel in 2001 not to use AMD processors. Toshiba thereupon dropped AMD. Its executives agreed that Intel's financial inducements amounted to "cocaine," but said they were hooked because reengaging with AMD would jeopardize Intel market development funds estimated to be worth \$25-30 million per quarter. Toshiba made clear to AMD that the tens of millions of dollars of additional marketing support was provided on the explicit condition that Toshiba could not use AMD microprocessors. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Toshiba.

44. **NEC.** AMD also enjoyed early success with NEC, capturing nearly forty percent (40%) of its microprocessors purchases for notebooks and desktops in the first quarter of 2002. In May 2002, Intel agreed to pay NEC more than 300 million yen per quarter in exchange for caps on NEC's purchases from AMD. The caps assured Intel at least ninety percent (90%) of NEC's business in Japan, and they established an overall worldwide quota on NEC's AMD dealings. The impact was immediate. While AMD had maintained an eighty-four percent (84%) share of NEC's Japanese consumer desktop business in the third quarter of 2002, after the payments, AMD's share quickly plummeted to virtually zero in the first quarter of 2003. NEC

has made clear to AMD that its Japanese share must stay in the single digits pursuant to NEC's agreement with Intel. Worldwide, AMD's share dipped from nearly forty percent (40%) to around fifteen percent (15%), where it stands today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to NEC.

45. **Fujitsu.** In the summer of 2002, Fujitsu informed AMD that Intel has pressured Fujitsu to remove Fujitsu's AMD-powered desktop models from Fujitsu's website. Fujitsu complied by making any potential AMD-buyer click past Intel products to get to the AMD offerings. Then, in early 2003, Intel moved to lock up an even larger share of Fujitsu's business. Intel offered an undisclosed package of financial incentives in return for Fujitsu's agreement to restrict its dealings with AMD. Fujitsu's catalog currently limits AMD to a single notebook product. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Fujitsu.

46. **Hitachi.** According to the JFTC, Intel has also purchased an exclusive-dealing arrangement with Hitachi, which had been a substantial AMD customer. The agreement caused AMD's Hitachi business to fall precipitously. For example, during the first part of 2002, AMD was shipping 50,000 Athlon microprocessors to Hitachi per quarter. But by the middle of the year, AMD sold no microprocessors to Hitachi at all. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Hitachi.

47. **Gateway/eMachines.** From 2001 to 2004, Gateway was exclusively Intel. In 2001 former Gateway CEO, Ted Waitt, explained to an AMD executive that Intel offered him large sums not to deal with AMD, which he could not refuse: "I have to find a way back to profitability. If by dropping you, I become profitable, that is what I will do." Shortly thereafter, Gateway stopped purchasing from AMD and issued a press release announcing its Intel

exclusivity. The announcement came within weeks of similar public announcements of Intel exclusivity by both IBM and Micron.

48. **Supermicro.** Intel's exclusive dealing also extends to small, specialty OEMs of which Supermicro is a good example. Supermicro, the preeminent system assembler for servers and other high-end computers, historically has followed the Dell strategy of never buying from AMD. This arrangement foreclosed AMD from a large part of the approximately one-fifth of the server sector not controlled by the Tier One OEMs. Following two years of negotiation, Supermicro finally agreed last year to begin developing an Opteron-powered server; however, it so feared Intel retaliation that it secretly moved the AMD development to quarters behind Supermicro's main manufacturing facility. Further, it forbade AMD from publicizing the product or beginning any marketing prior to its actual release. When, in April 2005, Supermicro finally broke away from years of Intel exclusivity, it restricted distribution of its newly-released Opteron-powered product to only sixty of its customers and promoted them with a glossy, upscale brochure devoid of its name and labeled "secret and confidential".

**b. Product-Line, Channel or Geographic Restrictions**

49. Intel has also bought more limited exclusivity from OEMs in order to exclude AMD from the most profitable lines or from channels of distribution best tailored to take advantage of AMD's price/performance advantage over Intel. In exchange for discriminatory discounts, subsidies or payments, for example, Intel has largely foreclosed AMD from the lucrative commercial desktop sector. Intel has focused on the major OEMs because, when IT executives from Fortune 1000 companies purchase desktop computers, they look for a strong brand on the box – Dell, IBM or HP. Knowing this, Intel has relentlessly fought to block the introduction of an AMD-powered commercial desktop by the major OEMs who have not ceded

total exclusivity to Intel. What follows, again, are only representative examples of Intel misconduct.

50. **HP.** In 2002, when AMD set out to earn a place in HP's commercial desktop product roadmap, HP demanded a \$25 million quarterly fund to compensate it for Intel's expected retaliation. Eager to break into the commercial market, and to earn a place in HP's successful "Evo" product line, AMD agreed instead to provide HP with the first million microprocessors for free in an effort to overcome Intel's financial hold over HP. On the eve of the launch, HP disclosed its plan to Intel, which told HP it considered AMD's entry into HP's commercial line a "Richter 10" event. It immediately pressured HP into (1) withdrawing the AMD offering from its premier "Evo" brand and (2) withholding the AMD-powered computer from HP's network of independent value-added resellers, the HP's principal point of access to small business users for whom the computer was designed in the first place. Intel went so far as to pressure HP's senior management to consider firing the HP executive who spearheaded the AMD commercial desktop proposal. As a result of Intel's coercion, the HP-AMD desktop offering was dead on arrival. HP ended up taking only 160,000 of the million microprocessors AMD offered for free. As of today, HP's AMD-equipped commercial desktops remain channel-restricted, and AMD's share of this business remains insignificant.

51. Intel also purchased HP's exclusivity for its most popular notebook line. HP captured fifteen percent (15%) of the U.S. retail market last Christmas with an Intel-powered 14.1" display notebook (the "DV 1000") with a popular power saving feature called Quick Play. When AMD sought to convince HP to carry a similar AMD-powered notebook, HP declined. It explained that Intel had paid between \$3 million and \$4 million to lock up this product line for at least one year.

52. **Gateway.** After Gateway's 2004 merger with eMachines, AMD attempted to revive the relationship it had enjoyed with Gateway until 2001, but experienced extremely limited success. While Gateway built one AMD-powered desktop model at the request of Circuit City, AMD remains locked out entirely of Gateway's direct internet sales, its commercial offerings and its server line. According to Gateway executives, their Company has paid a high price for even its limited AMD dealings. They claim that Intel has beaten them into "guacamole" in retaliation.

53. **IBM.** AMD and IBM began negotiations in August 2000 over a proposed commercial PC business partnership. After seven months and with a deal nearing completion, Intel approached IBM with an incentive-based program under which Intel would become IBM's "preferred supplier" for processors in commercial products. "Preferred" meant exclusive. IBM accepted Intel's proposal and terminated discussions with AMD. In return for that exclusivity, according to IBM executive Ed Thum, Intel paid IBM "millions of dollars in market development funds."

54. Intel also acted to thwart AMD efforts to partner with IBM on servers. Although IBM joined AMD as a launch partner when it introduced its Opteron 64-bit server chip in April 2003 – signaling to the industry and IT professionals its confidence in the product – Intel soon dissuaded IBM from aggressively marketing Opteron servers. After investing heavily in its design, IBM consigned its one Opteron computer model to a single target market segment (High Performance and Technical Computing). This was done, according to an industry report (confirmed by an IBM executive), because Intel paid IBM to shelve any further Opteron development. IBM also took Intel money in 2004 to scrap plans for a multiple-microprocessor Opteron server it had already designed and previewed with customers.

55. Intel has also purchased IBM exclusivity in its "ThinkCentre" line of commercial desktops. When AMD pressed IBM to add an Athlon 64 model to its "ThinkCentre" roadmap, IBM executives explained that the move would cost them important Intel subsidies, and they declined.

56. **Fujitsu.** In 2002, Fujitsu and AMD formed an alliance to develop a low-power commercial notebook (FMV Lifebook MG Series) scheduled to go to market in the first quarter of 2003, which AMD spent over 20 million yen designing. Shortly before the launch, Fujitsu told AMD that Intel would not allow it to launch an AMD-powered commercial notebook, and the project died. To this day, AMD remains locked out of Fujitsu's commercial notebook lines. Intel's exclusionary conduct with Fujitsu extends beyond commercial notebooks. In the consumer space, for example, Intel purchased total exclusivity for Fujitsu's FM-Bilbo NB consumer notebook line. When AMD tried to break Intel's lock on Fujitsu notebooks by offering to match any Intel discount, Fujitsu made clear that there was not price AMD could pay because Intel simply would not allow it. To this day, AMD remains locked out of Fujitsu's Biblo line.

57. **Fujitsu-Siemens.** Fujitsu-Siemens, a European joint-venture, was once a mainstay for AMD's desktop business, with AMD chips powering over thirty percent (30%) of Fujitsu-Siemens' offerings in the consumer sector. In early 2003, Intel offered Fujitsu-Siemens a "special discount" on Celeron processors which Fujitsu-Siemens accepted in exchange for hiding its AMD computers on its website and removing all references to commercial AMD-powered products in the company's retail catalog.

58. Intel has also succeeded in convincing Fujitsu-Siemens to impose market restrictions on its AMD-powered PCs. Its parent, Fujitsu, currently sells an AMD-equipped

Lifebook S2010, a commercial notebook, but only in the U.S. and Japan. Fujitsu-Siemens has declined AMD's plea to offer the machine in the European market as well. Similarly, Fujitsu-Siemens designed for the European market the FMC Lifebook MG Series notebook. But it refused to offer that computer in Asia or North America. Finally, although Fujitsu-Siemens produces an AMD commercial desktop, the Scenico, it refused to advertise it on its website, offering it instead only as a build-to-order product. Having invested significantly to bring these computers to market, Fujitsu-Siemens has been able to offer no explanation for its refusal to exploit them worldwide. AMD's unit share of Fujitsu-Siemens' business recently fell below thirty percent (30%) for the first time in four years.

59. **NEC.** Intel was forced to relax its hold on NEC's business when long-time NEC customer, Honda Motor Company, demanded that NEC supply it with servers powered by AMD's Opteron microprocessors. After underwriting the considerable expense of designing and manufacturing an Opteron server for Honda, NEC then inexplicably refused to market the product to any of its customers.

60. There is no reason, other than Intel's chokehold on the OEMs, for AMD's inability to exploit its products in important sectors, particularly commercial desktops. These computers, which large corporate customers buy in the tens of thousands at a time, represent a lucrative opportunity for the supplier. Yet, the microprocessors that power them are identical to microprocessors in consumer computers, a sector in which AMD has won both praise and market share. The only material difference between the consumer and commercial segments is that many more system builders supply desktops to consumers, making it more difficult for Intel to control their microprocessor choice.

**c. Exclusionary Rebates**

61. Intel has also imposed on OEMs a system of first-dollar rebates that have the practical and intended effect of creating exclusive or near-exclusive dealing arrangements and artificially foreclosing AMD from competing for a meaningful share of the market. In general, the rebate schemes operate as follows: quarterly, Intel unilaterally establishes for each of its customers a target level of purchases of Intel microprocessors. If the customer achieves the target, it is entitled to a rebate on all of the quarter's purchases of all microprocessors – back to the very first one – generally in the neighborhood of eight to ten percent (8-10%) of the price paid. Intel provides the rebate in cash at the quarter's close. OEMs operated on razor-thin margins, so qualifying for an Intel rebate frequently means the difference between reporting a profit or a loss in the coming – and closely watched – quarterly earnings.

62. In contrast to “volume discounts” that sellers offer on a graduated and nondiscriminatory basis to reflect cost efficiencies that accrue when dealing in larger quantities, Intel's is a system of “penetration” or “loyalty” rebates designed to exclude AMD from a substantial portion of the market. Intel intentionally sets a rebate trigger at a level of purchases it knows to constitute a dominant percentage of a customer's needs. It is able to develop discriminatory, customer-by-customer unit or dollar targets that lock the percentage (without ever referencing it) because industry publications accurately forecast and track anticipated sales and because OEM market shares – which industry publications also report weekly, monthly and quarterly – do not change significantly quarter to quarter.

63. Intel's retroactive discounts can operate to price microprocessors so low that AMD is put at a competitive disadvantage it cannot overcome. Consider an OEM which anticipates purchasing 100 microprocessors that both Intel and AMD sell for \$100.00 each. Intel



knows that because of its prior model introductions, the customer will have to buy 60 from Intel. The customer considers buying its expected balance for its new models from AMD, but Intel offers it a rebate that will entitle it to a ten percent (10%) retroactive discount if, but only if, it purchases 90 units or more. If the customer buys 30 of the 40 additional units from Intel to qualify for the rebate, its incremental cost for the 30 will be \$3,000.00 (30 units at \$100/unit) less the ten percent (10%) rebate going back to the first unit it purchased, which amount to \$900.00 (90 units x \$10/unit), for a total of \$2,100.00.

64. AMD can only capture the 30 units if it offers a price that makes the customer indifferent between getting the Intel rebate and getting an overall equivalent deal on AMD microprocessors. Thus, for the 30 units that are up for grabs, AMD would have to lower its price to \$70 per unit (because 30 units x \$70/unit equals the \$2,100.00 net cost for buying them from Intel). In effect, the rebate forces AMD to charge \$20.00 less than the \$90.00 discount Intel price if it attempts to get any business from the customer at all. That is because it is selling the customer only 30 units over which it has to spread a \$900.00 discount while Intel can spread it out over 90. At the end of the day, this creates a serious competitive disadvantage for AMD. As shown in the example, AMD is forced to discount its price three times as much as Intel just to match the Intel discount – not because its processors are inferior – far from it – but because Intel has assured for itself – by its past predatory practices – a significant base of assured demand which enables Intel to inexpensively spread its first-dollar discount. Importantly, this new base of demand – driven by the OEM's purchasing – will enable Intel to repeat its exclusionary practice when the next line of models is unveiled.

65. At least in the short run, most if not all of the major OEMs must engage significantly with Intel (1) because AMD is too small to service all their needs while continuing

to satisfy other customer demand; (2) because to meet customer expectations, OEMs must assure commercial computer buyers that specifications, including the microprocessor, will remain unchanged during the product's lifecycle; and (3) because Intel has encouraged end-users to specify that processors be of the same family among similar computers in one installation, as this is perceived to increase reliability (although technically this is not the case). Intel uses its retroactive discounts to make its large, captive market share self-perpetuating. In any one quarter, AMD cannot economically match Intel's retroactive rebate because it competes for too small a share of the customer's volume over which to spread the dollars necessary to equal the customer's total Intel cost savings. As a result, it loses the business and thus goes into the next selling cycle with Intel imbedded in additional customer product over which Intel can spread its rebates. This serves again to artificially constrain AMD's opportunity to match Intel's ensuing round of retroactive discounts. Intel's intertemporal leveraging of its market share effectively forecloses AMD from ever having a fair opportunity to compete.

66. Intel exacts a severe penalty from OEMs who fail to meet their targets. For example, during the fourth quarter of 2004, AMD succeeded in getting on the HP retail roadmap for mobile computers, and its products sold very well, helping AMD capture nearly sixty percent (60%) of HP's U.S. retail sales for the quarter. Intel responded by withholding HP's fourth quarter rebate check and refusing to waive HP's failure to achieve its targeted rebate goal. Instead, Intel "allowed" HP to make up the shortfall in succeeding quarters when HP promised Intel at least ninety percent (90%) of HP's mainstream.

67. Intel has deployed a variety of variants of this basic rebate scheme. In the case of one European OEM, for example, Intel imposes the additional condition that the customer purchase target volumes of specific processors, generally microprocessors against which AMD's

products compete particularly well. In the case of another, Intel offers as an inducement discounted microprocessors rather than rebates. In the case of the European division of one U.S. OEM, Intel has imposed a target of between seventy to ninety percent (70-90%) of the customer's requirements. Rather than qualifying the customer for a cash rebate, however, meeting the target entitles the OEM to purchase designated processors at up to twenty percent (20%) below "normal" cost, thereby enabling the customer to obtain favorable pricing on bundled products (e.g., a Centrino-series processor and chipset) and/or to receive product offerings not available to competitors.

68. Intel makes similar offers to smaller OEMs but they are generally unwritten, and Intel leaves undefined the consequences of failing to meet a target. Thus, a customer falls short at its peril, knowing only that it may lose its account with Intel and have to source future products from Intel distributors, which is both more expensive and provides less security of supply than direct purchase.

69. The salient features of all of Intel's rebate schemes are that they are discriminatory and market-foreclosing. If the customer chooses to purchase any significant quantity of microprocessors from AMD, it will not qualify for its rebate, and its price will be higher on all the Intel processors it buys across the board. By tailoring targets to each customer's size and anticipated volume, Intel locks up significant percentages of the market much more effectively and at a lesser cost to itself – but to a greater harm to AMD and ultimately consumers – as compared to offering such rebates for comparable purchase levels to all customers on a nondiscriminatory basis.

70. Intel's use of retroactive rebates leads, in some cases, to below-cost pricing on incremental sales. The following example shows why a customer's incremental cost of

purchasing from Intel those units that both Intel and AMD could supply (the “contested sales”) can be zero or even negative – a price AMD cannot match. Consider an OEM which has purchased 90 units of Microprocessor A at \$100.00 per unit under an Intel rebate scheme that entitles it to a ten percent (10%) first-dollar discount but only after it purchases more than 90 units. Its cost for the 90 processors is \$9,000.00. The OEM is now considering an additional purchase of a further 10 units. If it makes the additional purchase from Intel, the OEM will meet the expenditure condition and will qualify for the ten percent (10%) per unit discount on all units. Accordingly, the total spent will remain \$9,000.00. The incremental cost of the 10 additional microprocessors – as well as Intel’s incremental revenue – will be zero (the \$1,000.00 additionally spent, less the \$1,000.00 thereby saved). In other words, this scheme lead to incremental units being offered to the OEMs for nothing, leaving AMD hopelessly boxed out.

71. Importantly, even if Intel were to earn some incremental revenue on these marginal units, these additional revenues could be below the incremental cost of their production. As a result, Intel’s additional profit on the sale would be a negative, but for the fact that it had a long-run exclusionary effect on AMD. (Obviously, if Intel earns no revenues on its additional sales, it has to be foregoing profits.) As this analysis shows, some of Intel’s discriminatory, retroactive rebates amount to unlawful, predatory below-cost pricing.

72. Even where Intel’s prices are above cost on the incremental volumes and overall despite its retroactive rebate schemes, these rebates enable Intel to lower prices selectively in the contested market segment while maintaining higher prices in its captive market. For example, Intel can offer rebates which are granted across the entire volume of sales but which are triggered only if the OEM increases its purchases beyond the portion of its requirements which is captive to Intel. Indeed, Intel can even price above the “monopoly” level for the volumes below the

benchmark and offer huge discounts for additional purchases knowing full well that the OEM will not buy less than the benchmark and, instead, source the overwhelming share of its purchases from Intel thereby “qualifying” for the putative rebate while at the same time denying AMD any reasonable volume opportunity.

73. The use of retroactive rebates to limit AMD to a small share of an OEM’s business heightens the obstacle to including the OEM to launch AMD-powered platforms. OEMs incur substantial expense in designing and engineering a new computer, and make the investment only if they foresee a substantial chance of selling a sufficient volume to recoup it. Intel’s rebate and other business strategies effectively cap the volumes of AMD-powered products that an OEM can sell. Hence, Intel’s practices exacerbate normal impediments to entry and expansion.

**d. Threats of Retaliation**

74. Beyond exclusive dealing, product and channel restrictions and exclusionary rebates, Intel has resorted to old-fashioned threats, intimidation and “knee-capping” to deter OEMs from dealing with AMD. Intel has a variety of pressure points at its disposal: it can unilaterally reduce or withdraw a discount, rebate or subsidy; it can impose a discriminatory price increase on a disfavored customer, extend a price cut to that customer’s competitor, or force retailers into dropping the customer’s computers and buying from its competitor instead; or it can delay or dispute an allowance or rebate – all of which can turn a profitable quarter from an OEM into an unprofitable one. Other pressure points on accounts it deems disloyal include threatening to delay or curtail supplies of scarce processors or essential technical information. Examples abound.

75. As Gateway executives have recounted, Intel's threats beat them into "guacamole." But Gateway is not alone. Prior to its merger with HP, Compaq Computer received Intel threats every time it engaged with AMD. In late 2000, for example, Compaq's CEO, Michael Capellas, disclosed that because of the volume of business he had given to AMD, Intel withheld delivery of server chips that Compaq desperately needed. Reporting that "he had a gun to his head," Capellas informed an AMD executive that he had to stop buying AMD processors.

76. In 2002, Intel pointed its gun at NEC. Intel threatened to discontinue providing NEC with the technological roadmap of future Intel products if NEC did not convert its entire line of Value Star L computers to Intel microprocessors. Without that roadmap, NEC would be at a distinct competitive disadvantage. Predictably, NEC succumbed and eliminated AMD from the Value Star L series in 2002 and 2003.

77. NEC's European subsidiary, NEC-CI, which operates NEC's European and non-Japanese Asian divisions, reported that Intel executives said they would "destroy" NEC-CI for engaging with AMD in the commercial desktop segment. Intel told NEC-CI's retailers that NEC-CI's AMD dealings could impair its ability to supply products to its customers, and when NEC-CI resisted the pressure, Intel imposed a discriminatory price increase.

78. AMD had been engaged in discussions with IBM about introducing an Opteron "blade" server, when IBM suddenly announced that any such product it distributed could not bear an AMD logo. When pressed for an explanation, IBM reported that it could not appear overly supportive of AMD server products because it feared Intel retaliation.

**e. Interference with AMD Product Launches**

79. Key to gaining quick market acceptance of new microprocessors is a chipmaker's ability to develop a lineup of reputable launch partners, consisting of OEMs prepared to roll out products featuring the chip, major customers who are willing to buy and embrace it, and other industry allies, such as major software vendors and infrastructure partners who can attest to its quality and reliability. Particularly for commercial and enterprise (*i.e.*, server-work station) purchasers, a successful and impressive "launch" is essential to generating confidence among the computer professionals who will be the potential audience for the new microprocessor.

80. Aware of the importance of product launches, Intel has done its utmost to undermine AMD's. Set forth below are several examples.

81 AMD's September 23, 2003, launch of Athlon64 was a watershed event for the Company. Upon learning the launch schedule, Intel did its best to disrupt it. For example, Acer committed to support the AMD rollout by making a senior executive available for a videotaped endorsement and by timing the introduction of two computers, a desktop and a notebook, to coincide with AMD events planned for Cannes, San Francisco and Taiwan. Days before the event, Intel CEO, Craig Barrett, visited Acer's Chairman, CEO and President in Taiwan, expressed to them Intel's "concern" and said Acer would suffer "severe consequences" if it publicly supported AMD's launch. The Barrett visit coincided with an unexplained delay by Intel providing \$15-20 million in market development funds owed to Acer. As a result, Acer withdrew from the launch in the U.S. and Taiwan, pulled its promotional materials, banned AMD's use of the video, and delayed the announcement of its Athlon64-powered computers. Acer's President subsequently reported that the only thing different about Intel's threats was the messenger – they were "usually done by lower ranking managers," not Intel's CEO.

82 HP also withdrew precipitously from the Athlon64 launch after committing to participate. HP had agreed to support the launch by producing a promotional video and by sending senior executives to all three launch sites. Just before launch, however, HP manager, John Romano, pulled the video and announced that HP would only be sending a junior manager, and then only to Europe.

83 Other AMD customers and channel partners reporting Intel coercion to withdraw from the Athlon64 launch were Lenovo, NEC-CI and Best Buy.

84 Intel also disrupted AMD's launch of its Opteron server chip, which was rolled out on April 22, 2003, with a few in attendance and little industry support. A computer industry journal reported Intel's fingerprints: "They all [vendors] told me that prior to the launch, they received a phone call from Intel. Intel asked if they were going to the launch. If they replied yes, the Intel rep asked them if it was 'important to them to go,' or 'if they really wanted to go'. Pressing the vendors, I got the same response, 'Intel is too smart to threaten us directly, but it was quite clear from that phone call that we could be risking our various kickback money if we went.'"

85 Other companies that reported being intimidated from participating in the Opteron launch were MSI, Atipa, Solectron and Fujitsu-Siemens. Indeed, Intel representatives told Fujitsu-Siemens' executives in the weeks preceding the Opteron launch that if they attended, they would be the only Tier One OEM showing its support as all of the others would back out. With the exception of IBM, Intel was right.

86. These are not isolated examples, but rather illustrations of Intel's relentless campaign to undermine marketing efforts by its one remaining competitor. For example, IBM pulsed its AMD-powered computers from the 2004 Palisades eServer and PC Show, citing a



contractual agreement with Intel said to prohibit it from endorsing those competitive products. And at the 2004 Super Computing Show, an annual conference devoted to high performance computing, Intel offered two other AMD customers money to remove AMD systems from their booths. At CeBit, Intel threatened to pull a half million dollars of support from Fujitsu-Siemens for displaying AMD products (which were removed).

**f. Product Bundling**

87. Intel also uses product bundling as an exclusionary weapon in a variety of way. Intel's most common deployment is in bidding for a new OEM platform: it bundles microprocessors with free (or heavily discounted) chipsets or motherboards, often offered in amounts exceeding the OEM's requirements for the new platform. (The excess, of course, is only compatible with Intel processors, thereby providing the OEM a strong inducement to go with Intel rather than AMD on uncommitted models.) AMD does not shell chipsets or motherboards; they are provided by independent suppliers such as ATI, nVidia and Via which incur their own costs and control their own pricing. Hence, to match Intel's bundled microprocessor-chipsets-motherboards offer, AMD must extend a discount on its microprocessors that will not only match any Intel discount on the microprocessors themselves but also will compensate the OEM for the savings it will lose on independent Intel chipset and motherboard purchases. The additional compensation AMD is forced to provide through a discount on the sale of microprocessors alone makes AMD's sale of microprocessors potentially unremunerative, and it also enables Intel to avoid competing with AMD directly on microprocessor price and quality by imposing disproportionate burdens on AMD that are wholly unrelated to AMD's product quality which, as has been demonstrated, is frequently superior to that of Intel's.

88. As retaliation for dealing with AMD, Intel has also used chipset pricing as a bludgeon. For example, in 2003, Acer had committed to launch the AMD Athlon XP. Acer executives worldwide had been working with AMD to bring the product to market post-launch. But, on the eve of the launch the Acer management in Taiwan pulled the plug. AMD learned from Acer executives that Intel had threatened to raise chipset prices by \$10.00 on all Intel-based Acer systems if *any* processor business was awarded to AMD outside of Europe.

89. Intel's dealings with OEMs are unlawfully exclusionary, have no pro-competitive justification, and are intended to maintain its monopoly.

## **2. Practices Directed at Distributors**

90. Intel uses many of the same tactics it practices on OEMs to restrict distributors from carrying AMD processors or selling AMD products into markets it deems strategic. For example, it entered into an exclusive deal with Synnex, which is one of the largest U.S. distributors. Given Intel's eighty percent (80%) plus market share, there is not pro-competitive justification for this arrangement.

91. As with OEMs, Intel offers discounts and rebates to distributors on the condition that they not do business with AMD, either worldwide or in strategic sub-markets. For example, in December 2004, Ingram Micro, Intel's biggest distributor in China, suddenly cut off discussions to distribute AMD chips as well. A high-ranking Ingram Micro official reported to AMD that Ingram Micro had no choice because Intel proffered loyalty rebates that were too lucrative to pass up.

92. Intel also offers a panoply of special programs for distributors who carry Intel microprocessors exclusively: marketing bonuses, increased rebates, credit programs for new customers (credits that can be used for all products from Intel and any other suppliers), payment

for normal freight charges, and special inventory assistance such as credits to offset inventory costs. When such more nuanced means of achieving exclusivity fail, Intel has simply bribed distributors not to do business with AMD. For example, a high-ranking Tech Data executive turned down \$1 million to stop doing business with AMD, which caused the Intel representatives to ask, "How much would it take?"

93. Intel also offers retroactive rebates triggered when a distributor reaches a prescribed buying quota. Like the rebates offered to the OEMs, the intent is to inflict economic punishment on those who do too much AMD business. But, unlike OEMs, distributors remain ignorant of the goals Intel has set for them or the precise consequences of failing to meet them. Intel does not share this information with them; they simply receive a check at the end of the quarter. As a result, every AMD chip they purchase, they buy at their peril.

94. Finally, those distributors who choose to do business with AMD have been conditioned to expect Intel retaliation. For example, when ASI, one of the largest computer hardware and software distributors, began distributing AMD processors, Intel demanded that it exclude AMD personnel from its ASI Technology Shows and its General Managers' meetings. Until recently, ASI refused master distributor status from AMD, despite the financial benefits attached, because it feared that such a public alignment with AMD would trigger Intel retaliation. When, in January 2005, it finally accepted Master Distributor status, Intel began reducing the level of market development funds ASI received.

95. Avnet Inc., one of the world's largest computer equipment distributors and an avid AMD supporter, has also received its share of Intel intimidation. Thus, Avnet cited Intel as the reason it could not distribute AMD parts to the industrial sector. And when AMD launched its Opteron server chip, Intel made clear it would make it "painful" for Avnet were it to begin

distributing that chip. When Avnet did so anyway, Intel threatened to cut it off. Another distributor got even worse treatment. In retaliation for Supercom's AMD dealings in Canada, Intel pressured Supercom's customers to switch to another distributor.

96. These are not the only distributors that Intel has attempted to coerce from doing business with AMD. Others include R.I.C. in Germany, Paradigit in the Netherlands, and Quote Components, also in the Netherlands.

97. Intel's dealings with distributors are unlawfully exclusionary, have no pro-competitive justification, and are intended to maintain its monopoly.

### **3. Practices Directed at Retailers**

98. In both the U.S. and internationally, approximately one fifth of desktop and notebook computers are purchased at retail stores. A handful of retailers dominate the U.S. PC market: Best Buy and Circuit City are the largest. Other significant but smaller retailers are Walmart/Sams Club, Staples, Office Depot and Office Max.

99. Most of the PCs sold at retail are sold during four or five "buying seasons" that correspond to events on the calendar ("Dads and Grads," "Back to School," "Holiday," etc.), and retailers refresh their inventory for each. A chipmaker faces a two-step process to get its platform on retail shelves: first, it must convince one or more OEM to build machines using its microprocessor at a suggested price point (called "getting on the roadmap"); and second, it must convince the retailer to stock and devote shelf space to these machines. Shelf space does not come for free. The major retailers demand market development funds ("MDF") in exchange. MDF can consist of cooperative advertising support, but more frequently it comprises a marketing-related opportunity that a chipmaker must buy for tens of thousands of dollars, for example, space in a Sunday circular, an in-store display or an internet training opportunity with

the chain's sales staff. The MDF required to secure shelf space can run as high as \$25.00 per box depending on the computer price point and how urgently the competing chipmakers want the shelf space.

100. Intel has historically enjoyed an advantage over AMD at retail because, using many of the strategies described above, it has had greater access to the OEMs' roadmaps and the ability to exert pressure to keep AMD out of their product plans. Also, it has significantly greater financial resources with which to buy retail shelf space.

101. But to leverage those advantages, Intel has also made exclusive deals with many key retailers around the world. For example, until recently Office Depot declined to stock AMD-powered notebooks regardless of the amount of MDF AMD offered, citing its "premier" status with Intel that would be put at risk. Fry's is Fujitsu's only retailer in the United States. When Intel learned that Fry's was very successfully marketing a Fujitsu's Athlon™ XP-based notebook, it offered Fry's a large payment to remove it from its shelves.

102. The story is even worse in Europe. AMD has been entirely shut out from Media Markt, Europe's largest computer retailer, which accounts for thirty-five percent (35%) of Germany's retail sales. Intel provides Media Markt between \$15-20 million of MDF annually, and since 1997 Media Markt has carried Intel computers exclusively. Intel subsidies also foreclose AMD from Aldi, a leading German food retail chain, whose PC sales account for an additional fifteen-twenty percent (15-20%) of the German market.

103. In the United Kingdom, Intel has locked up substantially all of the business of DSG (Dixon Services Group), operator of three major chains including Dixon and PC World that collectively account for two-thirds of the U.K. PC market. In exchange for Intel payments, DSG has agreed to keep AMD's share of its business below ten percent (10%). Like Media Markt,

DSG reports that Intel penalizes it with reduced MDF just on account of the small amount of business it does with AMD. Toys 'R' Us in the U.K. is also exclusive to Intel. Time, another U.K. retailer (which builds computers as well), took a substantial MDF payment from Intel in exchange for near-exclusivity on notebooks during the first half of 2004, and it reports that Intel has withheld discounts because Time has introduced too many AMD Athlon64 desktop models. In France, Intel has brought pressure on the largest retailers, including Conforama, Boulanger, causing them to cease dealing with AMD or drastically reduce their AMD business.

104. AMD has nonetheless made some progress in gaining retail market share. Because of price/performance advantages, which are key in retail, OEMs build approximately fifteen percent (15%) of their U.S. domestic market desktops with AMD processors; within notebook roadmaps, AMD represents approximately ten percent (10%). On a shelf-space to sales basis, AMD has generally outperformed Intel. For instance, in the desktop segment during the fourth quarter of 2004, AMD-equipped computers captured between a thirty-three percent -- thirty-eight percent (33%-38%) share of Circuit City's sales, despite being limited to five of the 25 models (twenty percent (20%)) on the Circuit City shelves. And with approximately fifteen percent (15%) of the shelf space allotted to its products at Best Buy and CompUSA, AMD computers accounted for roughly thirty percent (30%) and twenty-two percent (22%) of their sales, respectively. These numbers confirm that AMD's products perform well at retail, provided that space is available.

105. In fact, Intel's staff was instructed "not to let this happen again." As a result, Intel instituted a rebate program similar to what it foisted on OEMs, with similar exclusionary effect. Under this program, Intel provides full MDF payments to retailers, such as Best Buy and Circuit City, only if they agree to limit to twenty percent (20%) not just the shelf space devoted to

AMD-based products, but also the share of revenues they generate from selling AMD platforms. If AMD's share exceeds twenty percent (20%), the offending retailer's marketing support from Intel is cut by thirty-three percent (33%) *across all products*.

106. This is how the program works at Circuit City. If less than twenty percent (20%) of Circuit City's notebook revenue derives from AMD-based computers (thirty percent (30%) for desktops), Intel has agreed to pay Circuit City \$15.00 in MDF per Intel-powered machine; but if the AMD percentage reaches or exceeds twenty percent (20%), Circuit City's MDF subsidy is cut to \$10.00. This creates a \$5.00 per box "tax" on the retailer for doing twenty percent (20%) or more of its dollar volume with AMD-powered machines; and this "tax" is applicable to all of the Intel-powered machines that the retailer buys, back to the very first machine.

107. The following illustrates the competitive disadvantage this creates for AMD: if Circuit City were to purchase only Intel-powered notebooks for its 200,000-unit inventory in a quarter, Intel would pay it \$15.00 of MDF per computer, or a total of \$3 million. However, if Circuit City were to reduce its purchases of Intel-based notebooks to eighty percent (80%) (160,000 units) so that it could stock a modest number of AMD-powered computers, Intel's MDF would fall to \$1.6 million (\$10 MDF/unit times 160,000 units). Were AMD to match Intel's \$10.00 per unit MDF on the 40,000 units it supplied Circuit City would receive an additional \$400,000.00 bringing its total MDF to \$2 million, leaving it \$1 million worse off for doing business with AMD. For AMD to make Circuit City "whole," it would have to vastly increase its MDF on its twenty percent (20%) share to \$35.00 MDF per unit ( $40,000 \times \$35.00 = \$1.4M$ ), which together with Intel's \$1.6 million would bring the total MDF back to \$3 million. In other words, to just capture a twenty percent (20%) share, AMD must offer two or three times as much MDF as Intel -- because it has far fewer units over which to spread the difference.

Given these perverse economics, Circuit City is not likely to allocate less than eighty percent (80%) of its notebook sales to Intel, even if it means taking AMD stock off the shelves at the end of a quarter. (Indeed, to avoid inadvertently running afoul of the limitation, a prudent distributor would keep AMD's share well short of twenty percent (20%).)

108. Nor is Intel above threatening retailers to gain preferred treatment. For example, at the recent CeBit computer show in Hanover, Germany (the largest computer show in the world), a German chain, Vobis, hung an AMD Turion64 banner from its booth as part of a co-marketing agreement with AMD and its OEM partner (Yakamo) to announce AMD's new mobile microprocessor. Intel's German general manager and its vice president for mobile products demanded that the Turion64 banner be removed. When Vobis' CEO declined, the Intel representatives threatened immediately to stop microprocessor shipments to Vobis supplier. The banner was removed before the CeBit show opened.

109. Intel's dealings with retailers are unlawfully exclusionary, have not pro-competitive justification, and are intended to maintain its monopoly.

#### **4. Intel's Standard Setting and Other Technical Abuses**

##### **a. Intel's Exclusion of AMD from Industry Standards**

110. Companies within the computer industry often agree to design certain aspects of their products in accordance with industry standards to ensure broad compatibility. Indeed, standards are not only ubiquitous in the computer industry, they are essential. But when a company is unfairly excluded from the standards-setting process or is denied timely access to the standard, competition can be restrained in a way that reverberates throughout the entire market. Intel has employed, and continues to employ, a variety of tactics that have the purpose and effect of excluding and/or hampering AMD's full and active participation in the development of



important industry standards. It has also worked to deny AMD timely access to such standards. Its efforts have hampered AMD's ability to vigorously compete in the market.

111. By way of example, Intel and AMD each develop and manufacture memory controller technologies that allow their processors and related components to communicate with memory. Intel designs and manufacturers are an entirely separate chip for this purpose, known as the Graphics and Memory Controller Hub, but AMD embeds its memory controllers directly into its processors, thus dispensing with the need for an extra chip and speeding up communication. Both companies need to know and have access to memory standards well in advance of producing their processors and/or chipsets so that their memory controller will be compatible with the next generation of memory devices.

112. The Joint Electron Device Engineering Council ("JEDEC") is the industry organization responsible for the standards governing the most recent generations of computer memory chips. Even though JEDEC was already developing the standards for the next generation of memory chips, Intel convened a secret committee that it dubbed the Advanced microprocessors Technology ("ADT") Consortium to develop a competing memory standard.

113. The ADT Consortium was cleverly structured with multiple tiers of membership, each with different levels of access to information. The majority of companies were consigned to the lowest tier, meaning that they would receive access to the memory standard only upon its completion, but not during its development. The actual development effort was undertaken by companies with the highest tier membership status, which Intel reserved for itself and the major memory manufacturers. No other companies were allowed input or full access to the standard during its development by the ADT Consortium.

114. AMD desperately needed access to the developing standard, and input into its definition, in order to be able to launch a microprocessor with updated memory controller technology at the same time as Intel. AMD lobbied repeatedly for higher tier membership status, but was continually turned down. Intel had structured the ADT Consortium's rules to require a unanimous vote – a rule that gave Intel veto power – over any decision to allow AMD to join the development committee; and it used that veto power to cause the Consortium arbitrarily to reject AMD's application.

115. By foreclosing AMD from input or access to the memory standard during its development process, Intel deliberately placed AMD at a severe competitive disadvantage. As a consequence of its exclusion, AMD had no opportunity to monitor participants' suggestions and to object to Intel-proposed features that were without substantial benefit to consumers and were instead motivated by Intel's desire to disadvantage AMD's microprocessor architecture. Furthermore, by keeping the ADT Consortium memory standard-setting process shrouded in secrecy, Intel was able to gain a significant head start. While the ADT Consortium was ultimately unsuccessful in implementing an industry standard, this type of exclusionary conduct exemplifies Intel's attempts to use industry standard-setting to competitively disadvantage AMD in an unlawfully exclusionary manner.

116. Indeed, Intel is attempting a repeat performance with respect to a new memory standard, this time excluding AMD by avoiding the open standard-setting committee entirely. Intel is currently coercing the major memory producers into signing a non-disclosure agreements and working exclusively with Intel in a "secret" committee to develop the next generation memory interface standard. Once under this agreement, the memory manufacturers are prohibited from sharing information about their own product designs implementing the memory

interface standard. This has the effect of preventing AMD from completing the design of its processor memory controllers until Intel permits memory manufacturers to communicate their interface specifications to the industry.

117. By this scheme, Intel tightens its control over the industry by converting what the component manufacturers intend as a public standard into a proprietary one, and thereby guarantees itself an undeserved head-start and unfair competitive advantage.

**b. Intel's Promotion of Industry Standards that Disadvantage AMD**

118. Even where it has been unable to exclude AMD from participating in the development of industry standards, Intel has attempted to drive the adoption of standards having no substantial consumer benefit and whose sole or dominant purpose was to competitively disadvantage AMD based on its highly integrated microprocessor architecture.

119. As an example, in 2004, JEDEC began developing standards governing the design of the memory modules for next generation ("DDR3") memory devices. These modules, known as dual inline memory modules, or "DIMMs," consisted of printed circuit boards upon which a number of memory chips were mounted. The DIMMs connected the memory chips to the computer's motherboard through a series of metal connectors known as "pins." One purpose of the JEDEC standards was to define the functions of these pins so as to enable chipmakers to design compatible memory controllers that would allow their microprocessors and the memory on the DIMMs to communicate.

120. The JEDEC committee, which consists of members representing companies throughout the computer industry, had already adopted a scheme for defining the pins for the previous generation ("DDR2") DIMMs used in desktop and laptop computers. When the JEDEC committee began work on standards for DDR3 memory modules for desktop computers, Intel

proposed that the committee adopt a pin definition similar to that sued for the DDR2 memory modules. This proposal made perfect sense, as Intel explained to the committee, because it allowed DDR3 memory controllers to be compatible with DDR2 and DDR3 memory modules.

121. However, when the JEDEC committee began to define the pins for DDR3 laptop memory modules in this consistent manner, Intel completely reversed its position, counter-proposing instead that the committee rearrange the pin definitions. Intel's proposal had no discernable technical merit or basis.

122. In fact, Intel's motivation for proposing modification of the laptop memory module pin definition was to competitively disadvantage AMD. Any modification to the laptop memory module pin definition would require Intel and AMD to make corresponding modifications of their memory controllers. AMD's microprocessor design, while representing a huge breakthrough in integration, embeds the memory controller directly into its microprocessor. While this produces significant computing advantages, modification of an embedded memory controller requires significantly more time and expense.

123. Knowing this vulnerability, Intel proposed its modified DDR3 memory module pin definition for laptop computers for the purpose of delaying AMD's introduction of a technologically superior part. While Intel's proposal was ultimately rejected by the JEDEC committee, confirming the proposal's complete lack of technical merit, this is yet another example of how Intel has attempted to drive industry standards to achieve its exclusionary ends.

**c. Intel's Leveraging of Its Other Product Lines to Unfairly Disadvantage**

**(1) AMD in the Marketplace**

124. Intel has also designed and marketed microprocessor-related products with the goal of compromising performance for those who opt for AMD solutions, even if it requires sacrificing its own product quality and integrity.

125. An example is Intel's compilers. Generally, independent software vendors ("ISVs") write software programs in high-level languages, such as C, C++, or Fortran. Before these programs can be understood by a computer system, they must be translated into object code – a machine-readable language – by a software program called a compiler. Different companies write compilers for different operating systems (Windows, Linux, etc.) and for different programming languages (C, C++, Fortran, etc.). Intel offers compilers for use with a variety of different operating systems and programming languages.

126. Intel's compilers are designed to perform specialized types of optimizations that are particularly advantageous for ISVs developing software programs that rely heavily upon floating point or vectorized mathematical calculations. Such programs include, for example, mathematical modeling, multimedia, and video game applications.

127. Intel has designed its compiler purposely to degrade performance when a program is run on an AMD platform. To achieve this, Intel designed the compiler to compile code along several alternate code paths. Some paths are executed when the program runs on an Intel platform and others are executed when the program is operated on a computer with an AMD microprocessor. (The choice of code path is determined when the program is started, using a feature known as "CUPID" which identifies the computer's microprocessor.) By design, the

code paths were not created equally. If the program detects a "Genuine Intel" microprocessor, it executes a fully optimized code path and operates with the maximum efficiency. However, if the program detects an "Authentic AMD" microprocessor, it executes a different code path that will degrade the program's performance or cause it to crash.

128. ISVs are forced to choose between Intel's compilers, which degrade the performance of their software when operated with AMD microprocessors, or third-party compilers, which do not contain Intel's particular optimizations. Sadly for AMD and its customers, for legitimate reasons Intel's compilers appeal to certain groups of ISVs, especially those developing software programs that rely heavily on floating point and vectorized math calculations. Unbeknownst to them, performance of their programs is degraded when run on an AMD microprocessor not because of design deficiencies on the part of AMD, but deviousness on the part of Intel.

## **VII. EFFECTS OF INTEL'S MISCONDUCT**

129. Intel's unlawful conduct has caused and will continue to cause substantial harm to competition in the market for x86 microprocessors in domestic, import, and export trade. Were it not for Intel's acts, AMD and others would be able to compete for microprocessor business on competitive merit, both domestically and internationally, bringing customers an end-product consumers lower prices, enhanced innovation, and greater freedom of choice.

130. Intel's anticompetitive acts both inside and outside the territorial boundaries of the United States have a direct, substantial, and reasonably foreseeable effect on trade and commerce that is not trade and commerce with foreign nations, and on United States import trade and commerce. In maintaining its monopoly by unlawfully denying rivals a competitive

opportunity to achieve minimum levels of efficient sale, Intel must necessarily exclude them from the product market worldwide. As the domestic U.S. market is but an integral part of the world market, successful monopolization of the U.S. market is dependent on world market exclusion, lest foreign sales vitalize a rival's U.S. competitive potential.

131. Intel's Sherman Act violative conduct throughout the world has caused and will continue to cause substantial harm to the business of AMD in the domestic, import, and export trades, in the form of artificially constrained market share, lost profits and increased costs of capital. Additionally, that same conduct has had, and will continue to have, a direct substantial, and reasonably foreseeable effect on AMD's ability to sell its goods to foreign customers in restraint of its U.S.-based and directed business, including its U.S. export business. These harms are evidenced by the following:

- When AMD first entered the server market in 2002 with its Athlon microprocessor – a part designed for desktops, not servers – the small OEMs and white-box vendors deploying the chip nonetheless managed to secure approximately three percent (3%) of the worldwide server market. AMD introduced its next generation Opteron microprocessor for servers the following year, and the chip won rave reviews and passionate customer testimonials, including Best of Show at the June 2003 ClusterWorld Conference and Expo and Best Processor award in July 2003 from InfoWorld. Nonetheless, by means of its exclusionary and anticompetitive conduct, as of the Fourth Quarter 2004, Intel had limited AMD's worldwide server market share to less than five percent (5%) not appreciably more than before it introduced the Opteron.
- Intel's exclusionary conduct has successfully boxed AMD out of the notebook sector. Its exclusive deals with Dell, Sony and Toshiba alone bar AMD from a third of the world market and half of U.S. domestic sales. Intel's economic coercion and fidelity rebates have foreclosed AMD from an appreciable share of the remainder.
- AMD's Athlon64 is widely recognized as fully competitive with Intel's best desktop offering with the added benefit that it can run 64-bit software. Nonetheless, with the exception of a channel-restricted HP machine and an single Fujitsu-Siemens' model, AMD has failed to get a single major OEM – which collectively dominate the lucrative commercial desktop sector – to launch broadly an Athlon64 commercial desktop. Fortune 500 companies won't take a chance on

AMD unless it partners with a Tier One desktop OEM, but Intel's exclusionary conduct, including its economic coercion of Dell, HP, IBM, Gateway and Acer, prevents that from happening. As a result, AMD's commercial desktop share is no greater now than it was in 2002.

## **VIII. CLAIMS FOR RELIEF**

### **COUNT I**

#### **Violation of Tenn. Code Ann. § 47-25-101**

132. Plaintiff repeats and realleges the preceding paragraphs and incorporates them herein by reference.

133. The antitrust provision of the Tennessee statutes, Tenn. Code Ann. § 47-25-101 (2002), provides in relevant part that:

All arrangements, contracts, agreements, trusts, or combinations between persons or corporations. . . designed, or which tend, to advance, reduce, or control the price or the cost to the producer or the consumer of any such product or article, are declared to be against public policy, unlawful, and void.

134. The Defendant has been a party to legal agreements, contracts, combinations, and/or conspiracies to design to fix, raise, stabilize and maintain the price for microprocessors as described with more specificity herein. Such agreement constitutes a violation of T.C.A. § 47-25-101, *et seq.*

135. Defendant's contract, combination or conspiracy has included actions and undertakings with the purpose and effect to: (a) fix, raise, maintain, and stabilize the price of microprocessors; and (b) insure that Plaintiff and members of the Class would pay supracompetitive prices for microprocessors manufactured by Defendant.

136. The acts done by the Defendant and in furtherance of, their contract, combination or conspiracy were authorized, ordered or done by their officers, agents, employees or representatives while actively engaged in the management of Defendant's affairs.



137. As a direct and proximate result of Defendant's conduct as described herein, Plaintiff and members of the Class have paid more than they would have for microprocessors manufactured by Defendant.

138. Plaintiff and the Class are therefore entitled to their damages, plus costs, pre and post judgment interest, and attorneys' fees.

**COUNT II**  
**Violation of Tenn. Code Ann. § 47-18-101 et seq.**

139. Plaintiff repeats and realleges the preceding paragraphs and incorporates them herein by reference.

140. The Tennessee Consumer Protection Act, T.C.A. § 47-18-104(a) and (b) provide in pertinent part as follows:

- (a) Unfair or deceptive acts or practices affecting the conduct of any trade or commerce constitute unlawful acts or practices and are Class B misdemeanors.
- (b) Without limiting the scope of subsection (a), the following unfair or deceptive acts or practices affecting the conduct of any trade or commerce are declared to be unlawful and in violation of this part:

\* \* \*

(27) Engaging in any other act or practice which is deceptive to the consumer or to any other person.

141. Defendant's unlawful agreement violates T.C.A. § 47-25-104 (a) and (b)(27).

142. As a direct and proximate result of Defendant's violation of T.C.A. § 47-25-104(a) and (b)(27), Plaintiff and members of the Class have paid more for microprocessors manufactured by Defendant than they would have in a free and competitive market, and were the victims of unfair and deceptive practices committed by this Defendant.

143. Plaintiff and the Class are, therefore, entitled to their damages, plus costs, pre and post judgment interests, and attorneys' fees.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiff prays that this Court award the following relief:

A. That the Court certify a Class consisting of all persons and entities within the State of Tennessee who from June 29, 2001 through the present, indirectly purchased a microprocessor from the Defendant. Specifically excluded from this Class are the Defendant; the officers, directors or employees of the Defendant; any entity in which any has a controlling interest; and any affiliate, legal representative, heir or assign of the Defendant. Also excluded are any federal, state or local governmental entities, any judicial officer presiding over this action, and the members of his/her immediate family and judicial staff, and any juror assigned to this action;

B. Appoint Plaintiff as representative of the Class;

C. Appoint Plaintiff's counsel as counsel for the Class;

D. Empanel a jury to try the issues when joined;

E. Enter judgment in favor of the Plaintiff and the Class;

F. Award Plaintiff and the Class treble damages against the Defendant in an amount to be proven at trial;

G. Award Plaintiff and the Class reasonable attorneys' fees;

H. Award Plaintiff and the Class costs reasonably incurred in the prosecution of this litigation, including costs pursuant to Rule 54 of the Tennessee Rules of Civil Procedure;

I. Award such other and further relief as this Court deems just and proper under the circumstances.

Respectfully submitted,

**GLASSMAN, EDWARDS, WADE  
& WYATT, P.C.**

By: B. J. Wade *by [signature] w/perm.*  
B. J. Wade (#5182)  
26 North Second Street  
Memphis, TN 38103  
(901) 527-4673

OF COUNSEL:

William M. Audet  
Michael McShane  
**ALEXANDER, HAWES & AUDET, LLP**  
300 Montgomery Street, Suite 400  
San Francisco, CA 94104  
(415) 921.1776

Ryan Hagan  
**ALEXANDER, HAWES & AUDET, LLP**  
152 North 3rd Street, Suite 600  
San Jose, CA 95112  
Telephone: 408/289-1776

**CIRCUIT/CHANCERY COURT OF TENNESSEE**  
**140 ADAMS AVENUE, MEMPHIS, TENNESSEE 38103**  
**FOR THE THIRTIETH JUDICIAL DISTRICT AT MEMPHIS**

**SUMMONS IN A CIVIL ACTION**

NO. ct-00 3801 - 05 AD DAMNUM \$ \_\_\_\_\_ AUTO G OTHER G

**CORY WILES, individually and on behalf of**

**Himself and all others similarly situated,**

**PLAINTIFF**

Business/Home Address

**VS**

**INTEL CORPORATION, a Delaware Corporation,**

**DEFENDANT**

Business/Home Address

**TO THE DEFENDANT:**

**INTEL CORPORATION**

**c/o C T Corporation System**

**800 South Gay Street, Suite 2021**

**Knoxville, TN 37929-9710**

You are hereby summoned and required to defend a civil action by filing your answer with the Clerk of the Court and serving a copy of your answer to the Complaint on B. J. Wade, #5182, Plaintiff's attorney, whose address is 26 North Second Street Building, Memphis, Tennessee 38103 within **THIRTY (30) DAYS** after this summons has been served upon you, not including the day of service. If you fail to do so, a judgment by default may be taken against you for the relief demanded in the Complaint.

**JIMMY MOORE, Clerk**

**KENNY ARMSTRONG, Clerk & Master**

By pea, D.C.

**TESTED AND ISSUED** 7-15, 2005

**TO THE DEFENDANT (S):**

**NOTICE:** Pursuant to Chapter 919 of the Public Acts of 1980 you are hereby given the following notice: Tennessee law provides a four thousand dollar (\$4,000.00) debtor's equity interest personal property exemption from execution or seizure to satisfy a judgment. If a judgment should be entered against you in this action and you wish to claim property as exempt, you must file a written list, under oath, of the items you wish to claim as exempt with the Clerk of the Court. The list may be filed at any time and may be changed by your thereafter as necessary; however, unless it is filed before the judgment becomes final, it will not be effective as to any execution or garnishment issued prior to the filing of the list. Certain items are automatically exempt by law and do not need to be listed; these include items of necessary wearing apparel (clothing) for yourself and your family and trunks or other receptacles necessary to contain such apparel, family portraits, the family Bible, and school books. Should any of these items be seized, you would have the right to recover them. If you do not understand your exemption right or how to exercise it, you may wish to seek counsel of a lawyer.

**COST BOND**

I hereby acknowledge and bind myself for the prosecution of this action and payment of all costs not to exceed \$500.00 in this court which may at any time be adjudged against the plaintiff in the event the said plaintiff shall not pay the same.

Witness My Hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Certification when applicable

Surety

I, KENNY ARMSTRONG, Clerk & Master of the Chancery Court, Shelby County, Tennessee, certify this to be a true and accurate copy as filed this \_\_\_\_\_

By: \_\_\_\_\_, D.C.  
KENNY ARMSTRONG, Clerk & Master

I, JIMMY MOORE, Clerk of the Circuit Court, Shelby County, Tennessee, certify this to be a true and accurate copy as filed this \_\_\_\_\_

By: \_\_\_\_\_, D.C.  
JIMMY MOORE, Clerk

**EXHIBIT**

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